



PLANT ENGINEERING
QUALITY ASSURANCE PROCEDURE
BROOKHAVEN NATIONAL LABORATORY

NUMBER PC-320 REV. 0

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DIVISION	Project Coordination	PREPARED BY	JF AF.
SUBJECT	QUALITY CONTROL AND INSPECTION	Q.A. REVIEW BY	KK KK
		APPROVED BY	ETM EDM

1.0 Purpose

To provide guidance in establishing inspection report forms for performing field and shop inspections, tracking results, and maintaining documentation in the project files.

2.0 Scope

This procedure applies to all Project Coordination construction projects.

3.0 Policy

Project Coordinators shall have appropriate inspections and/or tests performed to assure quality and completeness of purchased equipment and construction work. Inspections shall be planned, documented and the results retained in the project files.

- 3.1 In-process inspections of construction activities by the Project Coordinator and Construction Representative are intended to minimize problems later during formal, interim or final inspections by identifying unsatisfactory conditions at an early date when corrective action can be most effectively implemented by the vendor or contractor.
- 3.2 Conditions noted during in-process inspection should be brought to the vendor's or contractor's attention either verbally, or by letter or Nonconformance Report, depending on the nature and extent of the condition. Generally, the more expensive or time consuming the problem is to correct, the more formal and detailed the correspondence with the vendor or contractor should be.
- 3.3 Vendors and contractors should be encouraged to make all efforts to correct conditions noted during routine in-process inspections, prior to presenting completed segments of work to BNL for formal inspections.
- 3.4 Formal inspections and tests shall be conducted as required by the Specifications and immediately prior to milestone activities such as pressure testing, concrete pours, or completion of a particular subcontractor's work. Formal inspections shall also be conducted whenever the vendor or contractor submits an application for progress payment indicating full completion of any line item on his approved "Schedule of Values".



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4.0 References

- 4.1 BNL Attachment A, "Fixed Price Construction Contract, General Provisions", para. 11, "Inspection and Acceptance"
- 4.2 BNL-QAG-502, "The Source Inspection/Test of Purchased and Subcontracted Materials".
- 4.3 BNL-QAI-5.1, "Instructions for the Completion of Incoming Inspection/Test Record".
- 4.4 PC-005, "Project Files"
- 4.5 PC-321, "Nonconformance Reports"
- 4.6 PC-330. {Series}, "Construction Quality Assurance"

5.0 Definitions

- 5.1 Not used.

6.0 Procedure

- 6.1 The instructions provided in this section are intended as general guidelines for use in developing inspection plans, conducting the inspections, and tracking and filing the results.
- 6.2 Prior to submitting a segment of work for formal inspection, the vendor or contractor should be encouraged to assure himself that work is complete and of the quality required by the contract documents. The vendor or contractor should correct all unsatisfactory conditions detected and reported to him during routine in-process construction inspections
- 6.3 The Contractor must provide the Project Coordinator with sufficient advance notice of requested inspections or tests to allow for adequate review of contract (specification) requirements and preparation of inspection plans. The Contractor must also clearly identify the boundaries, areas or systems to be inspected.
- 6.4 The Project Coordinator or his designee shall prepare an inspection plan by conducting a review of contract specifications, drawings, referenced codes and standards, and the Construction Documentation Index. The basic acceptable formats for use as inspection plans are as follows:
 - 6.4.1 Inspection checklists or forms described in the Project Coordination Quality Assurance Manual (i.e. "Pressure Test Record", PC-330.22, "Concrete Inspection Sheet", PC-330.2). These forms provide a general guideline suitable for the inspection of routine types of construction activity. Modifications may be necessary



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to adapt a particular form for conditions unique to a particular project, or a particular segment of work.

- 6.4.2 The "Inspection Test Record", PC-320.1, (BNL Form F2624A). This BNL standard form may be utilized by following the instructions provided in Reference 4.3. This is the preferred format for conducting shop inspections in accordance with Reference 4.3.
- 6.4.3 The "Inspection Report Form", PC-320.2 may be utilized for inspecting work activity for which there is no previously reviewed inspection form or checklist in the Project Coordination or Design & Construction QA Procedures.
- 6.5 The Project Coordinator is responsible for assigning qualified personnel to conduct inspections, or to perform or witness tests. Whenever possible, it is desirable that major inspections be conducted jointly by the Project Coordinator and Construction Representative. The Contractor should be encouraged to have his representative witness the inspection to assure understanding of the process and results.
- 6.6 All unsatisfactory conditions detected during inspections or tests shall be clearly documented on the inspection form. Items determined to be nonconforming shall also be documented in accordance with PC-321.
- 6.7 The Project Coordinator should establish and maintain a working punch list (PC-320.3) consisting of all unsatisfactory conditions detected during inspections and tests. For large or complex projects, the punch list should be organized in sections, i.e. by trade, subcontractor or specification section.
- 6.8 All records of inspections and tests shall be filed in the appropriate project job file.



PC-320.1

INSPECTION/TEST RECORD

01/31/91

SHEET _____ OF _____

DEPARTMENT/DIVISION/PROJECT _____

☐ INCOMING ☐ IN PROCESS ☐ SOURCE ☐ OTHERQA CATEGORY ☐ A-1 ☐ A-2 ☐ A-3 ☐ B

ACCT. NO.	I.L.R. NO.	W.O. NO.	P.O. NO.	AM.	INSP. NO.

ITR	
REV.	DATE

PART NAME		ASSOCIATED DOCUMENTS	
PART NO.	REV.	PART NUMBER	REV/DATE
PREPARED BY		DATE	
VENDOR/SHOP			
QTY. REC'D		DATE REC'D	

REMARKS _____

☐ DATA SHEETS ATTACHED ☐ SEE CONTINUATION SHEET ON REVERSE SIDE

NOTE: DATA SHEET ID. TO INCLUDE "SHEET _____ OF _____, PART NAME, PART NO., DATE REC'D, QTY. REC'D"

CHARACTERISTIC/REQUIREMENT	INSP. LOC.	AQL	INSP. REJ.	ACCEPTANCE SIGNATURE	DATE

QTY. ACC. _____ SER. (LOT) NO. S.ACC. _____

NONCONFORMING REPORT

SER. NO.	DESCRIPTION	DISPO.	CE/CS & DATE	SPECIAL INSTRUCTIONS <input type="checkbox"/> NO

CORRECTIVE ACTION ☐ NOUSE AS IS _____ RTV _____ RWK _____ REPAIR _____ SCRAP _____
CE/CS _____ DATE _____ OTHER (IF R'EQ'D) _____ DATE _____

SHEET _____ OF _____

QTY. REC'D. _____ DATE REC'D _____ PREPARED BY _____

[illegible][illegible]

BROOKHAVEN NATIONAL LABORATORY Plant Engineering Division Project Coordination INSPECTION REPORT		JOB NO.	DATE							
		PROJECT TILTLE								
		VENDOR / CONTRACTOR								
ITEM EVALUATED	REFERENCE DOCUMENTS									
LOCATION										
PURPOSE OF EVALUATION										
ATTRIBUTES EVALUATED / REQUIREMENT				SPEC PARAGRAPH						
RESULTS										
				SIGNATURE		DATE				
DISTRIBUTION										

